

REMARKS

Favorable reconsideration of this application, in light of the following discussion and in view of the present amendment, is respectfully requested.

Claims 1, 3, 10, 15 and 19 are amended. Claims 1-19 are pending in the application.

I. Rejection under 35 U.S.C. § 102(e)

In the Office Action, at page 2, numbered paragraph 4, claims 1, 2, 7, 9 and 19 are rejected under 35 U.S.C. § 102(e) as being unpatentable over U.S. Patent No. 6,791,294 B1 to Kazama et al. This rejection is respectfully traversed because Kazama does not discuss or suggest that “a parameter which has been set in the numerical control device is the basis for an idle pattern transmitted to each servo amplifier in the servo motor control system and used in selecting a data transfer system,” as recited in independent claim 1 and similarly in claim 19.

As a non-limiting example, the present invention is a servo motor control system where a numerical control device is connected to at least one servo amplifier, and bit rates of a data transfer system which can be used by the numerical control device and the servo amplifiers are set as parameters. The numerical control device transmits an idle pattern based on the bit rate. Thereafter, each servo amplifier decides a bit rate based on the idle pattern transmitted and determines whether the servo amplifier can process the bit rate. A data transfer system is thereafter determined based on the ability of the servo amplifiers to process bit rates.

Kazama discusses a serial transmitting system in which a host controller transmits a command frame to a servo amplifier and a command follow-up type servo amplifier. In Kazama, “in the command frame, an information section, into which information to be transmitted is inputted, has discrimination data for showing a selection between the positioning type servo amplifier and the command follow-up type servo amplifier” (abstract, lines 4-9). Kazama does not discuss that a parameter set in the controller, which is a bit rate, is the basis for an idle pattern transmitted to each of the servo amplifiers used to select the data transfer system. The present invention determines whether the servo amplifier can process a bit rate and based on whether the bit rate can be processed, a data transfer system is selected. In contrast, Kazama merely discusses transmitting a command having discriminating data indicating the first or the second servo amplifier, but does not discuss or suggest that a parameter, set in the numerical control device, is the basis for an idle pattern transmitted to the servo amplifiers which is used to select a data transfer system.

Therefore, as Kazama does not discuss or suggest “a parameter which has been set in

the numerical control device is the basis for an idle pattern transmitted to each servo amplifier in the servo motor control system and used in selecting a data transfer system,” as recited in independent claim 1 and similarly in claim 19, claims 1 and 19 patentably distinguish over the reference relied upon. Accordingly, withdrawal of the § 102(e) rejection is respectfully requested.

Claims 2, 7 and 9 depend either directly or indirectly from independent claim 1 and include all the features of that claim, plus additional features that are not discussed or suggested by the reference relied upon. For example, claim 2 recites that “the servo amplifier discriminates and determines a data transfer system on the basis of a frequency of signal change for a predetermined time in a received signal on the serial bus so that the servo amplifier is adaptable to a plurality of data transfer systems.” Therefore, as claims 2, 7 and 9 are dependent on independent claim 1, these claims patentably distinguish over the reference relied upon for at least the reasons noted above. Accordingly, withdrawal of the § 102(e) rejection is respectfully requested.

II. Rejection under 35 U.S.C. § 103

In the Office Action, at page 3, numbered paragraph 8, claims 8 and 14 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kazama in view of U.S. Patent No. 4,835,706 to Asahi or U.S. Patent No. 6,442,444 B2 to Matsubara et al. This rejection is respectfully traversed.

As discussed above, Kazama does not discuss or suggest all the features of amended independent claim 1. Specifically, Kazama does not discuss that “a parameter which has been set in the numerical control device is the basis for an idle pattern transmitted to each servo amplifier in the servo motor control system and used in selecting a data transfer system.” Applicants respectfully submit that Asahi and Matsubara fail to make up for the deficiency in Kazama. Asahi and Matsubara do not discuss or suggest that a parameter is used that is set in a numerical control device that is the basis for an idle pattern transmitted to each servo amplifier and used to select a data transfer system. Therefore, as Kazama does not discuss or suggest all the features of claim 1, and Asahi and Matsubara fail to make up for the deficiency in Kazama, claim 1 patentably distinguishes over the references relied upon.

Claims 8 and 14 depend either directly or indirectly from independent claim 1 and include all the features of that claim, plus additional features that are not discussed or suggested by the references relied upon. For example, claim 8 recites that “the serial bus employs an optical communication system, the numerical control device and the servo amplifier have optical modules, respectively, and, when transfer bit rates of at least two types are used, the optical

modules regulate emission intensities of light-emitting elements according to the transfer bit rates." As claims 8 and 14 are dependent on independent claim 1, claims 8 and 14 patentably distinguish over the references relied upon for at least the reasons noted above. Accordingly, withdrawal of the § 103(a) rejection is respectfully requested.

III. Allowable Subject Matter

The Applicants appreciate the acknowledgement by the Examiner that claims 3, 10 and 15, which are objected to, would be allowable if rewritten in independent form. Accordingly, claims 3, 10 and 15 are rewritten in independent form.

The Applicants appreciate the acknowledgement by the Examiner that claims 4-6, 11-13 and 16-18 are allowed.

Conclusion

In accordance with the foregoing, claims 1, 3, 10, 15 and 19 have been amended. Claims 1-19 are pending and under consideration.

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

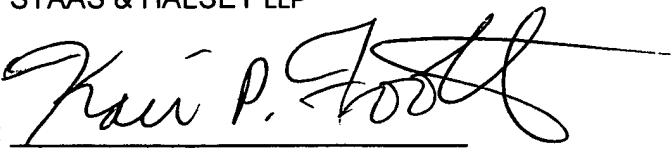
Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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